

WHAT IS CLAIMED IS

1. Device for digital input and output data management, including first management means and second management means connected to each other via two interfaces, one a network and the other a standby line, said means mutually exchanging polling messages via these two interfaces, said first means being considered to be defective by said second means when they no longer sends messages during a given time interval on at least one of said two interfaces, characterized in that it includes at least one algorithm to reset said first and second means, the defective means being deactivated and the other means activated during the reset after detection of a failure.
2. Device according to claim 1, wherein said reset algorithm is included in said first means and is activated by said second means, the memory address of the algorithm being accessible from these second means.
3. Device according to claim 2, wherein said reset algorithm is also included in said second means.
4. Device according to claim 1, wherein on initialization of its operation, said first means have the role of master and said seconds means have the role of slave, with the master managing the input and output data.
5. Device according any of the preceding claims, wherein said means are connected to one or more systems via said network.
6. Device according any of the preceding claims, wherein said means are connected to one or more systems via one or more serial links, a "Y-split cable" connecting a given port of said first and second means to each system.
7. Device according any of the preceding claims, wherein said means have the same functions and include the same software and same configuration files.

8. Device according any of the preceding claims, wherein when one of said means are detected as being defective by the other means, the latter deactivate the defective means.
- 5 9. Device according to claims 4 and 8, wherein when said means detected as being defective are the master, said slave means deactivate the master's inputs/outputs and active their own inputs/outputs.
- 10 10. Device according any of the preceding claims, wherein said polling messages, the transmission interval between these messages, and the time limit between two messages are stored in a configuration file contained in both the said first and second means, possibly with several sets of such parameters being stored to serve different applications.
11. Device according to claim 10, characterized in that at initialization of said means, the parameters specific to an application are loaded into a RAM memory.
- 15 12. Device according any of the preceding claims, characterized in that it includes means of alert to warn of a failure.
13. Device according any of the preceding claims, wherein said network is a digital local area network.
- 20 14. Device according any of the preceding claims, wherein said means of input/output data management are data routers.
15. Device according to claim 14, wherein said routers operate in open (Open Communication Processor) mode.
16. Device according to any of claims 1 to 13, wherein said means of input/output data management are data servers.